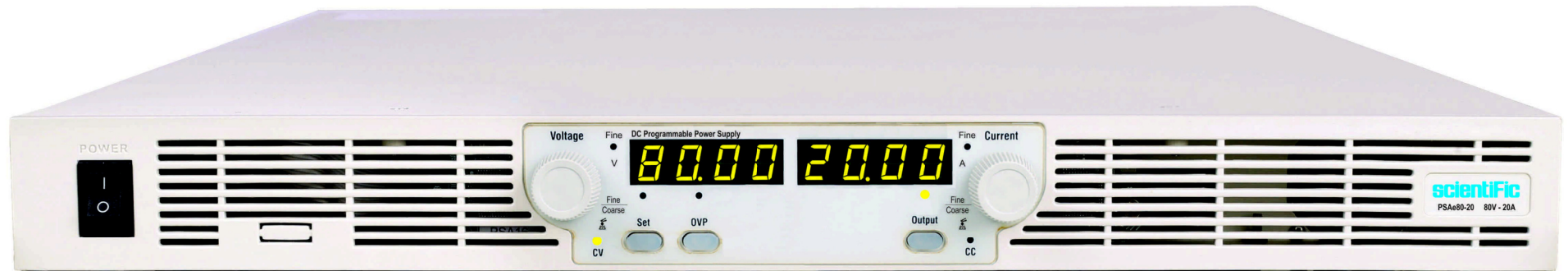


## 1600 W Programmable DC Power Supply

**MADE IN INDIA**



### Technical Specifications

	PSAe 16-100	PSAe 20-80	PSAe 32-50	PSAe 40-40	PSAe 60-26	PSAe 80-20	PSAe 100-16	PSAe 120-13	PSAe 160-10	PSAe 300-5	PSAe 600-2.67	PSAe 800-2	PSAe 1000-1.6	
Output Voltage (V)	16	20	32	40	60	80	100	120	160	300	600V	800	1000	
Output Current (A)	100	80	50	40	26.67	20	16	13.3	10	5.33	2.67	2	1.6	
Rated Power (W)	1600													
Efficiency at 230V, full load (%)	80	80	83	83	85	85	85	85	85	85	87	87	87	
<b>Constant Voltage Mode</b>														
Load regulation 0 ~ 100% (mV)	2	2	4	4	4	4	4	4	6	6	10	10	10	
Line Regulation (mV)	1	1	1	1	1	1	1	2	2	3	3	3	3	
Ripple	BW=300 kHz (mVrms)	5	5	5	5	5	7	8	8	10	15	20	30	50
	BW= 5Hz~1MHz (mVrms)	8	8	8	8	8	10	12	12	15	18	25	40	60
	20 MHz (mVpp)	30	30	30	40	40	45	50	50	60	70	80	90	120

		PSAe 16-100	PSAe 20-80	PSAe 32-50	PSAe 40-40	PSAe 60-26	PSAe 80-20	PSAe 100-16	PSAe 120-13	PSAe 160-10	PSAe 300-5	PSAe 600-2.67	PSAe 800-2	PSAe 1000-1.6
<b>Constant Current Mode</b>														
Load regulation 0 ~ 100% (mA)		15	15	10	10	10	10	9	9	8	8	8	8	8
Line Regulation (mA)		2	2	2	2	2	2	2	2	2	2	2	2	2
Ripple (at full load)	BW=300 kHz (mArms)	35	35	35	30	28	25	22	20	20	12	5	5	4
	BW= 5Hz~1MHz (mArms)	50	50	50	40	35	30	27	25	20	15	8	6	5
	20 MHz (mApp)	130	120	120	100	90	80	70	60	60	50	30	25	22
Remote sense drop (V)		1	1	2	2	2	2	2	2	2	2	2	2	2
<b>Programming Speed (into resistive load)</b>														
<b>Rise time (10% to 90%)</b>	100% load (ms)	12	15	20	25	28	30	35	50	80	120	150	200	250
	10% load (ms)	8	10	18	20	25	25	30	40	70	110	130	180	220
<b>Fall time (90% to 10%)</b>	100% load (ms)	20	20	22	22	25	35	50	80	100	180	200	220	250
	10% load (ms)	200	210	225	240	250	350	400	600	800	850	1000	1200	1500
	No Load (s)	1.2	1.2	1.5	2.0	2.5	3.0	3.5	4.5	6	8	10	12	15
<b>Recovery Time</b>														
Recovery within (mV)		80	80	80	80	80	100	120	150	200	300	500	600	800
Time @ 50 – 100 % load step (μs)		100	100	100	100	100	100	100	100	100	100	100	100	100
Max deviation @ 230 V mains (V)		0.15	0.15	0.15	0.15	0.15	0.25	0.5	0.8	1.0	1.5	2.0	2.5	3.0
<b>Temperature Coefficients</b>	CV & CC	80 ppm/°C (after warm up of 30 min and during 8 Hrs)												
<b>Output Stability</b>	CV & CC	100 ppm (after warm up of 30 min and during 8 Hrs)												
<b>Analog Programming (Rear panel 25 pin D connector)</b>														
Programming	Voltage	0 ~ 5 V/, Accuracy: ± 0.5 % of Vrated, Input Impedance: 1 MΩ												
	Current	0 ~ 5 V/, Accuracy: ± 1 % of Irated, Input Impedance: 1 MΩ												
Monitoring	Voltage	0 ~ 5 V/, Accuracy: ±1 % of Vrated, Output Impedance: <150 Ω / 4 mA max												
	Current	0 ~ 5 V/, Accuracy: ±1 % of Irated, Output Impedance: <150 Ω / 4 mA max												
V reference		5.1 V ± 15 mV												
Status outputs		Power Supply : OK = Logic 1 (High), AC Fail = Logic 0 (Low),												

	PSAe 16-100	PSAe 20-80	PSAe 32-50	PSAe 40-40	PSAe 60-26	PSAe 80-20	PSAe 100-16	PSAe 120-13	PSAe 160-10	PSAe 300-5	PSAe 600-2.67	PSAe 800-2	PSAe 1000-1.6	
	DC Fail : Logic 0 (low) for DC fail by $\pm 5\%$ of set value, CV / CC Status : CV = Logic 0 / CC = Logic 1 Interlock : Short = Power Supply Enabled, Open = Power Supply Disabled DC ON Status : ON = Logic 1, OFF= Logic 0, OVP Status : Fault = Logic 0, OK = Logic 1, OTP Status : Fault = Logic 0, OK = Logic 1, Remote Status : Remote = Logic 1, Local = Logic 0													
Remote shutdown	+5 V													
<b>Front Panel</b>														
Controls	Mains ON / OFF, Voltage and Current setting with Encoder (Coarse, Fine and Super Fine) Switch Settings : Set, OVP Setting & Output													
Indicators	LEDs for Set, CV, CC, Output Status; Messages on Display: Voltage & Current Set Value, Voltage & Current Read Value, Over Voltage, AC-Fail, Over Temperature													
<b>Display</b>														
Accuracy	Voltage : $\pm (0.25\% + 2D)$ , Current : $\pm (0.5\% + 2D)$													
Scale	Voltage (V)	0-16.00	0-20.00	0-32.00	0-40.00	0-60.00	0-80.00	0-100.0	0-120.0	0-160.0	0-300.0	0-600.0	0-800.0	0-1000
	Current (A)	0-100.0	0-80.00	0-50.00	0-40.00	0-26.70	0-20.00	0-16.00	0-13.30	0-10.00	0-5.33	0-2.67	0-2.00	0-1.60
Resolution	Voltage (V)	0.01	0.01	0.01	0.01	0.01	0.01	0.1	0.1	0.1	0.1	0.1	0.1	1
	Current (A)	0.1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
<b>Protections</b>	Over voltage, Over Current, Short Circuit, Over temperature													
<b>Output Terminals</b>	Bus bar with M5 bolts													
<b>Mains Input</b>	195 ~ 270V, 50 / 60Hz (47 ~ 63Hz)													
Power Factor	0.99 @ full load / 0.98 @ 50% load													
Turn On Delay	600 ms after mains switched ON													
Inrush current (A)	<30													
Hold up Time (ms)	20													
<b>Environment Conditions</b>														
Operating Temperature	0 ~ +50°C; with 100% load; derated 75% at 60°C													
Storage	-40 ~ + 85°C													
Humidity	max. 95% non condensing at 40°C max. 75% non condensing at 50°C													
Safety	Insulation: Input to Output: 3750 V for 1 min Input to case: 2500 Vrms, Output to case: 600 V Insulation resistance: 100 M $\Omega$ at 25°C, 70% RH, 500 Vdc													

	PSAe 16-100	PSAe 20-80	PSAe 32-50	PSAe 40-40	PSAe 60-26	PSAe 80-20	PSAe 100-16	PSAe 120-13	PSAe 160-10	PSAe 300-5	PSAe 600-2.67	PSAe 800-2	PSAe 1000-1.6
<b>General Specifications</b>													
Dimensions (mm)	W x D x H : 443 x 485 x 43.5 mm (1U, 19" Rack size) excluding connectors, terminals, switches, front and back panel controls, handles etc												
Weight (kg)	11kg (Approx)												
Cooling	Forced, variable fan speed												
Standard Interface	Analog Programming												
Standard Accessories	Mains Cable												

**Notes:**

Subject to change without notice

1. Unit warm up time is 30 min..
2. Sensing at the rear panel of the power supply unit at sense terminals
3. Minimum output voltage guaranteed to maximum of 0.2% rated.
4. Minimum output current guaranteed to maximum of 0.4% rated.
5. Please contact factory for 0 ~ 10 V analog programming and units in master/slave parallel operation.

**scientific**

**Scientific Mes-Technik Pvt. Ltd.**

B-14, Industrial Estate, Pologround, Indore 452 015, India

☎ 0731-2422330/31/32/33

✉ sales@scientificindia.com

🏠 www.scientificindia.com



Bengaluru 080-23452635  
Chennai 044-42054180  
Gujarat +917567463752  
Hyderabad +917095228811  
Kanpur +919981329105

✉ bangalore@scientificindia.com  
✉ chennai@scientificindia.com  
✉ gujarat@scientificindia.com  
✉ hyderabad@scientificindia.com  
✉ up@scientificindia.com

Kolkata +919673162333  
Mumbai +919850901735  
New Delhi +918770013379  
Pune +919603828884

✉ kolkata@scientificindia.com  
✉ mumbai@scientificindia.com  
✉ ndelhi@scientificindia.com  
✉ pune@scientificindia.com